AFAFD Standard Operating Procedure 27

Petroleum Oil and Lubricant (POL) Tank Fire

- At no time will fire attacks be conducted from downhill or down wind positions.
- Assess the tank's structural condition to ensure no immediate danger of shell collapse or failure is present.
- Maintain the structural integrity of the tank shell with cooling agents.
- Extinguish ground fires and three-dimensional fires first.
- Assign an Incident Safety Officer for each operational sector. Establish **"react teams"** operating portable monitors and hoselines ready to protect personnel operating near the tank.
- Extended fire fighting operations could produce a significant buildup of water in diked areas. Such buildup can be reduced using pumps or fixed drains in the dike wall.
- Stagger relief companies to allow for operations/attack continuity.
- Isolate hazards if possible and determined available resources. Use dry-chemical followed by foam "securing" streams to extinguish three-dimensional fires. Solely applying foam to a manifold fire usually is **not effective.**
- If not available protect exposures, apply cooling streams above product line and consider transfer of product.
- Once fire is extinguished ensure the source of fuel is shutoff.
- Control flowing fuel by damming, diking or diverting.
    - Example agent requirements for extinguishing POL tank fires:

Contents	Diameter	Fuel (Gals)	AFFF Required (per min/per 65 min)	Water Required (per min/per 65 min)
JP-8	73.3'	1,320,000	20 gal / 1315 gal	1962 gal / 127,555 gal
JP-8	43.5'	420,000	7 gal / 463 gal	776 gal /44,911 gal

NOTE: The AFFF quantities are determined by using the following formula: Diameter squared X .785 X .16 (for portable device such as trucks and monitor devices) X .03 (3% AFFF X 65 mins). To calculate the total water requirements you multiply the sum total of your finish foam by 97. For total agent requirement you add the sum of the AFFF and water.